United States Patent [19]

Braun

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[54] PRESSURIZED ARRANGEMENT INCLUDING TIMERS FOR METERING INK ON THE FOUNTAIN ROLLER OF A PRINTING PRESS

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 213,865, Dec. 8, 1980, abandoned.

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1521	U.S. Cl	101/365; 101/DIG. 26
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		350, 148, 147, 206, 207, 208, 210,
	•	DIG. 26; 118/259, 410

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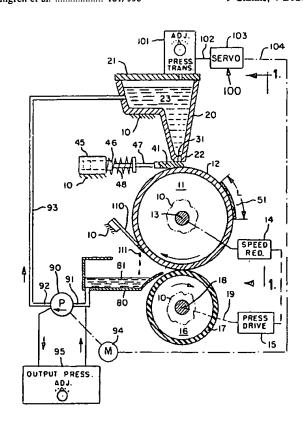
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[57] ABSTRACT

An ink fountain of the type in which ink is metered from nozzles located in respective zonal positions. The nozzles have narrow axially extending openings in general alignment with one another closely side by side. A tank is provided adjacent the fountain roller, with the nozzles being in the form of slots at the bottom of the tank, the tank being sealed and connected to a source of viscous ink under predetermined pressure. Reciprocable slides are arranged side by side interposed between the nozzles and the surface of the fountain roller, each slide having a reference position for normally blocking off ink flow from the associated nozzle and being retractable to open the nozzle. A solenoid is connected to each of the slides for forcibly and temporarily retracting the slide from its reference blocking position. Each solenoid has a biasing spring for restoring the slide to its reference blocking position. An individually adjustable timing device is controllingly connected to each solenoid for cyclically energizing it for pre-set intervals of time which correspond to the ink requirement in the respective zonal position. The tank in the preferred embodiment is supplied with ink through a supply line fed by a pump from an open reservoir.

9 Claims, 4 Drawing Figures



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TITLE: Pressurized arrangement including timers for

metering ink on the

fountain roller of a printing press

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It is a well known fact that the ink requirements across the width of a printed page is not the same column by column or zone by zone. In some of the column positions there may be heavily pigmented areas as, for example, a half-tone illustration with a dark background, requiring more ink to be fed in that position than in other positions across the page which are only lightly pigmented.

It will be apparent to one skilled in the art that the objects of the invention

have been amply carried out. Since all of the nozzles have the same cross

sectional geometry and are subjected to the same prressure, each nozzle

produces the same instantaneous rate of discharge of ink. However, the average

rate of discharge which depends upon the time factor may be easily and

conveniently varied over wide limits by a simple manual adjustment of time

interval. While it is true that a separate timer is required for each of the

numerous slides across a page width, timers employing solid state devices and

susceptible to accurate calibration may be very cheaply obtained on a .

commercial basis and may be expected to last indefinitely so that the overall

cost of the presently disclosed control system is much lower than comparable

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